Inaugural Essay
on
the Smyrnium Trifoliatum
for
the degree of Doctor of Medicine
in the
University of Pennsylvania
by
Littleberry G. Wynn
of
Virginia -

Passed - March 1828

186 - Ed. Medical Thesis

Du
Plan
Plani
But h
as to le
Nutta
Sinno
Smyrn
Nutta
radic
Flowe
stoolh
Fruit
seeds y
elevate
substra
Smyrn
radica
petion

Dioscorides - a Greek Physician first noticed this Plant - This physician has paid attention to 600 Plants - and the Smyrnium is one of them -
But his descriptions are often so slight - and imperfect, as to leave their identity - a matter of conjecture -
Nuttall denominates, it the Thapsia Trifoliata - of Linnæus - Cnidium Cordatum of Cuff-on -
Smyrnium Cordatum of Walter - and - Pursh -
Nuttall's - description is as follows - Leaves crenate, radicles suborbiculate - uppermost 3 - parted -
Flowers yellow - involucell - 3 leaved - unilateral, calice, 5 toothed - Petals oval accuminate, involute -
Fruit small blackish - somewhat laterally compressed, seeds gibbous - marked with 3 immarginate angular elevations - exclusive of inner margins, intervals substriate - its commissure flat -
Smyrnium Cordatum of Walter - & Pursh - Foliis radicalibus - suborbiculata - cordatis, crenatis - caulinis petiolatis trifoliatis - supremis - 3 partitis umbella radiis,

bevibu

ornat

parte

I sha

leaves

notch

comm

Havin

The ra

Stem

into ito

umbels

in whi

center,

these f

the sam

The eff

simila

Dauce

brevibus — Pursh — radical leaves, suborbiculate, cordate, crenate, stem leaves, petiolate, trifoliate, upper-ones 3 parted, umbels, without short radii —

I shall describe it in the following manner, radical leaves are suborbiculate, crenate leaves have their edges notched around the circumference, in resemblance, to a common dining plate —

Having rounded projections, inclineing to neither side. The radical leaves are cordate or heart shaped — Stem leaves are petiolate, and has footstalks inserted into its base — They are also trifoliate, upper ones 3 parted, umbels with short radii — and these are made in flowering in which a number of flowers issuing from a common center, diverging like the rays of an umbello — bearing these flowers on the summit, and raising them about the same height —

The efflorescence, is of an umbelliferous character — similar to the Cicuta — Apium Petroselinum — or the Daucus Carota — The fruit is subelliptic, or of an ovol

from
The in
those
rays o
To M
Linne
distan
convin
tempar
It also
injury
nourish
Plant
leaves
are wa
The st
These
radica
their p

form — they are also convex, with 5 elated ridges — &c —
The involucells are nearly, allied to the calix, which I mean those leaf like appendages which frequently, inclose the rays of the umbels — Also — subequal, intervals grooved: —
To these leaves Botanist — apply the term involucell —
Linnaus — regards them, as a common calix — placed at a distance — from the flowers, calix is an invesment or covering — of the flowers — which after serves, the purpose of a temporary bud —
It also preserves the more tender organs within it from injury — And elaborates, the sap which goes to the nourishment of the flowerstalk —— This is a perennial Plant — and is seen during the hibernal season, with its radical leaves — in a perfect state of verdure — But the stem leaves are wanting — or in other words never exist during winter —
The stalk at this period is dead —
These are only present during summer — in winter 2 or 3 radical leaves remaining perfectly green — and retain their proper shape &c The radical leaves exist in winter only —

This pla
of the see
This is a
flower-
woodla
along r
Schuic
racka—
The Sm
States—
is a Wa
Alexan
This pla
previan
No-Ba
naticed.
As far
decided
reside

This plant derived its name - from μυρρα - myrrh - the smell of the seed resembling that of myrrh - very much —

This is seen during the Months - of June and July in flower - It flourishes luxuriantly - on mountainous woodlands - clay soil appears to suit it best — It is found along rivulets, and in valleys - may be seen on the Schuylkill near - Philadelphia - frequently among rocks —

The Smyrnium flourishes - from the New England States - to - North Carolina — The Smyrnium Trifoliatum is a plant - belonging to the genus of plants - called - Alexanders, Class Pentandria - Order, Digynia. —

This plant has been - noticed by me - for several years, previous to my administering it —

No - Botanist as far, as I am capable of judging, has noticed - the active principles of the root of this plant — As far as my practical observations - teach me, I am decidedly of the opinion, that all its active properties, reside in the roots — Here I deem it of some

practice
so as to
roots—
But wo
many—
as a Cro
When r
spangy
remain
Angelica
Salina
delicate
nose—w
mouth—
It also
and this
or itching
As long a
of saliva—

practical utility - to make some preliminary remarks, so as to form a correct idea, as to the texture of the roots — The roots when recent, are externally, smooth — But when old, rough, and tuberculated — They never have many radicles pafing off - the roots are generally large as a crows quil, and often larger —

When recent, the internal medullary - partians are spongy - and white — If pulverized, and suffered, to remain in the mouth, its taste is similar to the Angelica — It also promotes a copious discharge of Saliva — and often carrugates, the mucipcrans glands and delicate superficial surface of the tongue, and the membrane - which is reflected over the varians cavities of the mouth —

It also produces a pungent - penetrating, sensation, and this continues for several hours - such as smarting or itching of the mouth - and tongue - pauces &c —

As long as the excitement and burning continues, the discharge of saliva - is copiously secreted —

as to the
more or
somewh
spongy
joint —
suffered
Tea — B
The se
if chew
for seve
produc
seeds —
conde
relieve
sensati
As to th
colour —
I have
place —

As to the stalk - there is nothing very peculiar - generally it is more or less smooth, and at times longitudinal ridges - somewhat elevated — The internal diplaic structure is spongy and has a hallow, cylinder extending - to each joint — &c — The leaves, in a dried state - when chewed, and suffered to remain in the mouth have the taste of Hyson Tea — But not so strong —

The seeds - when pulverized have an aromatic smell if chewed - and kept within the cavities of the mouth - for several minutes - there is a warm sensation produced - similar to that given off - by the Columbine seeds — These perhapse in many cases might be used as condiments — It is highly presumable - that these would relieve in many cases Gastrodynia - and other painful sensations of the stomach —

As to the flowers - they are of a beautiful bright yellow colour - making their appearance in June & July —

I have said enough of these, in a more appropriate place — Therefore I shall dismiss the minute detail of

there — a
This mea
milk wi
is the best
the roots —
matters o
Milk — an
New strai
of it — in
or 15 minu
of the case
This is a g
not be sa
insoluble
decided n
And this w
papers — p
papers —
undoubled

them — And now proceed to the mode of administration.
This medicine is given internally, made into decaction.
Milk without acidity — and taken immediate from the Cow
is the best menstrum — And decidedly when new — 2 oz of
the roots — washed and deprived of its impurities — extraneous
matters &c Are to be pulverized — and put into a quart of
Milk — and gently boiled down to half its quantity —
Now strain it for use — and commence the administration
of it — in Doses of a wine glass full, repeated every 10
or 15 minutes — according to the urgency and circumstances
of the case — for breatment —
This is a graduated dose — for an Adult — but should
not be so strong for Children — I have made it an
invarible rule — to give this Medicine, until some
decided impression, is made on the system —
And this will be obvious to any Practitioner — as it
possesses — powerful — diffusible — and pervading — Narcotic
powers — It also acts as a Diuretic — slightly — it has
undoubtedly the properties of a Diaphoretic — —

And excit
Muscula
In every p
has never
These pa
a state of
after taki
in this c
It has nev
almost in
that the za
but its a
active pri
ence of na
analyzing
unprepar
of the zad

The ~~#~~ eff

And excites a profuse diaphoresis—it has a tendency to relax muscular contractility—and to produce a softness of skin. In every patient to whom I have given this medicine—it has never failed to produce its narcotic effects—

These patients, commonly were—placed immediately in a state of somnolency—In 10 or 15 minutes—they were—after taking it—thrown into a deep sleep—and remained in this condition for 6 or 8 hours——

It has never failed in my hands to mitigate, and, relieve pain almost instantaneously—when given—I will observe here that the root and leaves—have been employed by me—but its activity is in the roots—I believe that there is an active principle contained in the roots—But in consequence of not having an opportunity at this time—of analyzing its constituent principles, I am at this time unprepared to say what it it is—Or in what portion of the roots it resides——

Surgeons—generally, are acquainted with the effects of the venom of Poisonous Serpents,

when in

These effe

very extr

and alarm

ne, hemo

the parts

surrounde

a state o

Ge

superficia

there appe

soft parts

The pain

entirely co

Vomiting

ting from

particular

Circulatio

when introduced into the sanguiferous system —
Those effects resulting from the Copperhead-bite, are often very extraordinary - progressing with severe symptoms, and alarming consequences — The instantaneous effects are, hemorrhage, acute lancinating pain, throbbing of the parts wounded, a pulsatile movement in the surrounding, superficial integuments, which are in a state of excitement —

General intumescence, in the parts affected - superficial inflammation - with more or less pruritus, there appears to be a preternatural constriction - of the soft parts - in the immediate vicinity of the wound. — The pain in a short time becomes aggravated, and not entirely confined to the parts injured —
Vomiting is often an immediate consequence originating - from the effects of the Virus of the Copperhead - particularly when successfully introduced in the circulation —

The pulse is generally accelerated and

char
parts
Men
visia
flush
insan
spam
The
applic
actia
And
excite
es- ar
Snake
calcu
virus
Naw
attin
Man

charded - headache - determinations of blood to the parts diseased - and often to the head —

Mental hallucinations - stupor - and delerium, vision partially suspended - pupil of the eye contracted, flushed countenance - great pain and thirst - involuntary evacuations - of urine — At times spontaneous - fæcal discharges, per - Anum —

The venom of the Copperhead upon its immediate application - into soft parts - gives a stimulating action —

And Muscular contractility is extended and excited - at times — Having experienced - the consequences - arising from the introduction - of the venom of this Snake - Myself - I presume no person is better calculated to give an illustrative history of the virus - and its effects - than myself -

Now before I enter into a minute detail of the cases which I attended - I will merely - observe - that - I never saw a Man killed by the effects - of the virus - of the Copperhead,

But
12 C
not p
made
agai
Fran
reme
I wi
sympl
adm

c
was bu
This b
of the w
penetr
parts—
The

But I have days after — and other inferior animals, 12 Cases — I have used this medicine in — And it did not fail in one of them — From the experiments made — this appears evidently, to be an antidote — against the effects of the venom — of the Copperhead. From the circumstance of its proving — a successful remedy in each case —

I will now state the cases — and many of the symptoms — which were present at the time of the administration of this medicine —

Case 1st —

As regards the human subject —

A — boy aged, 15 years — belonging to Mr. A — was bitten near the malleolus internus, by a Copperhead. This boy — experienced much pain, great acute sensibility of the wounded parts — There were also a peculiar penetrating sensation — and constriction of the soft parts —

The swelling — was rapid — superficial inflammation

came
deter
Nau
gently
and-
which
chara
Sigh
symp
When
to ad
And
Hama
dispe
In 10
remai
& hau
a prop
The ski

came on – the capillaries – soon were reddened by a determination – of blood to the parts —

Nausea – and vomiting ensued – and ultimately this gently subsided — The pulse was somewhat accelerated and – intermitting – some fever supervenced – the pain which is felt in cases of this nature – is of a diverging character – like the rays flying from a center —

Sight slightly injured – delirium, and melancholic symptoms – the prevailing – distresses of the Patient —

When these urgent symptoms, were present – I ventured to administer a decoction of this Plant —

And upon its immediate introduction – into the stomach – all violent symptoms – were entirely dissipated —

In 10 or 15 minutes – the patient went to sleep – and remained – in this particular condition – nearly 8 hours — The whole system became tranquilized – a profuse diaphoresis speedily took place —

The skin in a short time – was soft and relaxed –

this pa

A

May

This pa

left me

point—

the sam

by the l

the pain

patient

soon ca

continue

finally t

There w

attended

The arm-

much swe

and cell

soon after

this patient was cured by this Medicine —

Case 2nd —

Maj. P. had his Son bitten by a Copperhead —
This patient was 16 years old — he was bitten on the left middle finger — immediately on the second joint — He received two bites — in succession — on the same joint — There were 5 or 6 orifices, made by the teeth of the snake — the finger bled profusely, the pain was very acute — and lancinating — this patient suffered immensely, the joint of the finger soon commenced swelling, and this intumescence continued — up the finger to the hand and wrist — finally to the axilla —
There was a tension in the Pectoral muscles — attended — with a preternatural rigidity —
The arm — and muscular parieties of the axilla were much swelled — and this extended to the axillary glands and cellular membrane &c —
Soon after receiving the bite — vomiting commen-

large-
frequen
macera
These
irritab
reverse
interesti
phenom
vertigo
The p
hurried
ng- grea
I was ca
when I s
symptom
I without
of this
ly speak
him- the

large - evacuations of bile of a dark gelatinous nature, frequent inclinations to stool - and often involuntary, evacuations of Urine —

These symptoms were attended with much gastric irritability - much activity was given to the bowels - by reverse sympathy - The vermicular motions of the intestines - were much agitated - these distressing phenomena - were succeeded - by sick headache - vertigo - dimness of vision &c —

The pulse hurried and much agitated - respiration hurried and difficult - thirst excessive, fever supervening - great mental derangement &c —

I was called an 2 hours - after the accident had occurred, when I saw him he was then labouring - under the symptoms just enumerated —

I without any degree of hesitation - gave a decoction of this Plant - to - him - The result was it comparatively speaking - almost instantaneously - relieved him - there was a general tranquility produced, by the

specif
In a
ing —
I will
not g
here e
The sp
and n
origin
Drawn
origin
This
caustic
blister
tinctur
Not t
remain
extense
history

specific action of this medicine on the system —
In a few minutes sleep was produced - and upon waking - he was nearly - well - except his finger —
I will state - that the finger which was wounded - did not get well - until the expiration - of 3 months after he received - the bite —
The parts inflamed - and went on to suppuration - and ulceration - the finger now being 3 times its original size - there were fungous granulations - thrown out - and these appeared to have taken their - origin - from the surrounding integuments -
This finger proved very - intractable in its cure - Caustic applications were used, and many - others - as blisters - poultices - cupping - and the muriated tincture of iron - &c -
Not to mention others - the finger ever afterwards remained, in a state of rigidity - flexibility and extensibility being entirely lost — This is an accurate history of the second case — &c

Mr;
tae-
of-w
the ba
exten
exten
The
times
in an
themse
them
I gan
perfec
of eve
it-

Was bit

Case 3rd —

Mr; P's Little Son was bitten - on the ball of the large toe - aged 11 - years - The pain which he complained of - was very excruciating - from the circumference of the ball of the toe - the swelling in this case was not extensive - But the foot was much - swelled - and extended to the ankle - leg - &c -

The hemorrhage was slight - this boy vomited 2 - or 3 times - accompanied with headache - giddiness in a slight degree - many other - symptoms - exhibited themselves - but it is not necessary to mention them here - I said this patient 2 hours after bitten, I gave a decoction of this medicine - it perfectly cured him - This patient was relieved of every symptom in 15 minutes after taking it - - - -

Case 4th —

Mr. P. Aged 28 years -

Was bitten - by a Copperhead - this man came near

bitsing b
resulting
to an ab
was we c
were in
This ma
the hand
the arm
as hues
This was
tongue
unable t
It prog
there wa
I saw
time fi
hurried
The pat
and int

losing his life — from this accident — The consequences resulting — from the effects of the virus — were alarming — to an astonishing degree — The pain which followed was excessive — and — lancinating — vomiting and nausea were instantaneously induced —

This man was bitten on the back of the right hand, the hand and arm soon swelled — and in a few days, the arm was of a greenish — colour — with streaks of various hues — running in a longitudinal, and spiral direction, This was a case of singular phenomena, the patients tongue was swelled to such an extent, that he was unable to close the mouth —

It projected out of his mouth — an inch or more — there was a copious discharge of saliva — at the time I saw him — the glands of the throat — were in a tumefied — condition — respiration difficult — hurried and contracted —

The patient complained of soreness of the pectoral and intercostal muscles —

This p
skin-
immo
The pa
horizo
placed
sympt
arriva
sent f
condi
And
I witha
stama
deeac
for the
a few
effects-o
and hap
The int

This patient had considerable fever - when I saw him - hot skin - severe headache - delerium - vertigo - languar - and immoderate thirst - restlessness - &c

The patient could not lie contented in bed - neither in a horizontal position - or any other posture whatever placed in — All these perplexities originating from the symptoms - being so excessive and urgent — Upon my arrival - at the patients residence - having been previously sent for - I at once saw plainly his unhappy condition —

And - in order to get the Medicine - into the Primæ Viæ, I without hesitation - introduced a Gumelastic Stomach Tube — And threw into the stomach a decoction which had been previously prepared for the express purpose — All the distressing symptoms in a few minutes gently subsided - the tranquilizeing - effects - of this medicine - in - this case were surprizeing, and happily met the sufferers - approbation —

The intumescence accordingly disappeared, the

tongue
and a
The pa
and h
Termi
Eight
bitter
hand
case
It is a
recau
speed

Mr
His m
and s
The f
a degr
camp

tongue which was very much swelled rapidly collapsed, and assumed, its original shape and size —
The patient now became speedily in a convalescent state, and hence a permanent cure was the result, and termination of the case —
Eight months after this accident this patient was bitten a second time, on the index finger of the right hand — The consequences and effects of the virus, in this case were similar to that of the above narrated case —
It is only necessary to mention that this Man had recourse to the same Medicine — And a cure was speedily induced — &c —

Case 5th —

Mr. E. Received a bite on the right foot —
This man experienced great pain — considerable itching, and smarting of the parts affected, by the poison —
The foot speedily became tumefied — and to such a degree that he was unable to walk — and was compelled, to keep, the foot in an extended position —

When I saw
symptoms
favorable
it acted b
appreciation

This was a
A Servan
This man
near the
being bitten
plant as
failed, and
Ammonia
without a c
Caustic appl
effect
The system
usually hap

When I saw this man, he exhibited many distressing symptoms - connected with a deficiency of the intellectual powers - &c - I also gave this medicine in decoction - it acted like a charm - All the strange, and morbid aspirations - were speedily dissipated, & cure was perfected

Case 6th

This was a case of some material practical importance, A Servant belonging to Mr - J - Aged 26 years — This man - was bitten by a Copperhead - on the right foot near - the Malleolus internus — On the 12th day, after being bitten - I was sent for - to try the effects of this plant - as many other important remedies had totally failed, and proved unavailing — The Carbonate of Ammonia - and its several preperations - had been tried, without a cure being performed - Opium - Cupping - Caustic applications - and Blisters were tried without effect

The system underwent, the different changes which usually happens from an accident of this nature

The pa
vomita
bite—p
The pu
interm
at this
pain a
The pa
most e
The p
And t
hue—se
to sit e
deleri
implea
uniaers
Syncop
and the
This m

The patient stated to me, at the time I saw him, that he vomited - copiously, in a few minutes after receiving the bite - partial blindness immediately came on -
The pulse was accelerated - and small, somewhat intermitting — The 12th day after the accident I saw him, at this stage of the progressing consequences - arising from the specific - action of the venom - on the constitution the patient was completely prostrated - and deprived most entirely of muscular action —
The patients limb - was swelled - up to the groin -
And to the body it continued - it assumed a greenish hue - nearly its whole length — The patient was unable to sit erect in bed - much debility supervened - headache delerium - mental hallucinations - emotions of an unpleasant nature - the powers of digestion impaired, universal constipation of the bowels —
Syncope - and convulsions - were concomitant symptoms, and these occured frequently - and of a periodical nature.
This mans tongue was very much swelled, and at

at the
have su
But ha
prin-
perfect
All the
gradua
tranqu
solicited
this me
after the
and to re
I contin
repeated
gradua
of gentle
was relax
I will a
off and

at the time I saw him, I did not think the patient could have survived long under such existing circumstances. But however I prepared a decoction of this Plant for him — it was immediately administered — and with perfect safety —

All the urgent symptoms which were much aggravated, gradually subsided — The mental emotions were tranquilized — pain alleviated — a gentle sleep was solicited — I have often seen patients after my taking this medicine remain in this state for 6 or 8 hours, after the patient took this medicine he began to mend, and to resume his natural functions and abilities — &c I continued this decoction in doses of a wine glass full repeatedly — and continued it for several days — then gradually discontinued the farther use of it — A gentle diaphoresis was produced — the muscular system was relaxed — Nervous agitations calmed —

I will observe, that the hair of this patients head came off — and left the entire scalp denuded —

And m
perum-
superf
the aspe
ly speak
The cir
feet s
a phes
or gwi
This m
shillo
Mane
to be m
this m
mnaw-
C
Capt
Bitter
mellu

And many places under the skin appeared as if filled with serum - many small vesicles - were situated on the superficial periphery of the limb — These exhibited the aspect as if filled with yellow serum - and comparatively speaking as if infiltrated —

The cuticle on the palms of the hands & soles of the feet sloughed away — How to account for such a phenomena - I am utterly incapable of determining, or giving a satisfactory explanation — of —

This man when I saw him - had fever - and frequent chills of an irregular nature —

Many other symptoms - but they are too - multiferous to be mentioned here — It is only necessary to state this man - entirely recovered, and has as far as I know - ever since remained - a healthy Man —

Case 4th —

Capt J. G. had a Negro boy aged 18 years - Bitten on the right foot - by a Copperhead - much swelling - originated from the effects - of the active

pres
The
opte
dete
Shy
infl
man
but
utiti
was-

Mr
mak
of gre
anna
paras
not w
This
restlep

principles - of the virus - on vital parts —
He vomited twice in succession - in a few minutes after receiving the bite - there appeared to be a determination of blood to the parts wounded —
Slight hemorrhage - ensued - afterwards inflammation - succeeded this accident —
Many more symptoms might be narrated, but I do not consider them of much practical utility - Medicine given in the usual way - a cure was made - thus ends the history of this Case - &c —

Case 4th —

Mr D - Had a Negro - Man - who was bitten by this snake - on the right foot - This man complained of great pain - unhappy sensations of mind - constant annoyance - produced by the periodical severe - paroxysms — Many others - but they appear to be - not worthy of remark - not to expatiate more —
This Plant cured - him - the patient was very restless - and impatient - But on its immediate

appli
and a

Mr. J
On th
cause
swell
inflam
The p
atten
time p
and w
fram
and as
The pa
comm
125 wo
by the a
slight a

application to the stomach — he — fell into a deep sleep, and on waking — was cured — &c —

Case 4th —

Mr. H. had a servant Woman bitten by a Copperhead, On the right index finger — and severe were the consequences — arising from this bite — the whole hand, swelled — accompanied with great pain — and inflammation —

The patient when I saw her — had fever, in the finger — attended with a throbbing sensation — and general tumefation — The whole hand speedily swelled — and was — of a bright scarlet colour — shooting pains from the hand — up the arm to the axilla — the arm and axilla were sore to the touch —

The pulse was in a few minutes much agitated — communicating a pulsatile acceleration — equal to 125 strokes in a minute — She was vomited twice, by the effects of the vein — purged 3 times — there was slight delirium — &c —

With
and
with
relie

degre
I pre
illea-
Curea
And
cured
every
I am
an inf
effects
And
have be
I here
to mentia

With all these symptoms - supervencing - at the time I saw her - I ventured on the Smyrnium and not without success - And no sooner given than relieved —

Having dwelt, somewhat in a lengthened degree - on some of the foregoing cases —
I presume I have said enough - to give a correct idea - of the cases - which I have attended - and cured with the Smyrnium —
And it only remains - for me to say - this Plant cured - or acted as an energetic - Antidote - in every case - in which I have employed it —
I am decidedly of the opinion - that this Plant is an infallible Antidote - against the pernicious effects of the Venom of the Copperhead —
And shall be of this opinion - untill - it shall have been proven otherwise —

I here deemed - it of some practical importance - to mention 4 Interesting cases of Spider bite - the Black

Spiri
medi
pall
with
fram
I sha
surge
subje
Havi
cures
I will
on the
I have
its vir
accur
I sten
but tid
its reg
virus t

Spider - is the one alluded to here - I have used this medicine in each case - and every one of them were palliated and cured - by it - These cases were attended with - the general phenomena - which usually occur from the effects of the spider bite -

I shall not enter into a history of the cases - because surgeons - have already expatiated enough on this subject -

Having given a general history of this plant - and the cures performed by its internal administration - I will make a few general - and accurate remarks on the Poison of the Copperhead -

I have paid particular attention to this snake and its virus - for several years - and from practical and accurate discriminating points - or conclusions - I ventoraphanically - say - that I have discovered, but little - difference - in the effects of its venom - as regards different stages of the year - I believe its virus to be equally as poisonous - at one season of the

year
I have
bitter
never
cause
This
Rattl
of the
camp
is-ma
prop

strike
its us
But o
cuticl
yellow
Its he
abase

year as an another — From this very identical - circumstance, I have frequently seen dogs - and other inferior animals bitten when they make their first appearance - And never - without death - instantaneously - and other distressing consequences —

This Snake is now said - to be as poisonous - as the Rattle - Snake — And I firmly believe - if the venom of the two - Snakes was fairly tested - and placed in competition - with each other — That of the Copperhead is - more constant - and permanent - in its deleterious properties —

In autumn this Snake is blind, and - will strike at any thing, which may touch it —

its usual length is three feet - and some inches - But may be seen of various lengths - Its external cuticle - is copper coloured - and variegated with yellow spots - and also - with dark purple ones —

Its head is of a triangular shape - flattened from above - anteriorly - and flat on the base —

In the
exte
of the
subj
diff
the B

Mad
This do
and y
had n
neither
Hence
Duati
resulti
I will
be-fell
waited

In the fall months their eyes are glassy, and red-lines extending-a cross the cornea-and anterior chambers, of the eyes— I have now said all I know on this subject— and believing, there will be hereafter-no difficulty in obtaining a certain antidote-against the venom of this snake- the Copperhead—

I will here relate 2 interesting experiments, Made during the month of August 1827— On a healthy Dog— This dog was bitten, by a-Rattle-Snake-7 feet three inches long, and 7-months anticeedent, to this experiment- this Snake, had not eaten any food- Vegetable or Animal- and neither had bitten any animal.—

Hence its venom must have possessed its specific-Qualities— Some of the most striking consequences, resulting from these experiments made on the dog— I will briefly narrate— At the time the dog was bitten- he fell in the cage- which contained the Snake- I then waited- until he was labouring under all the effects of-

the a
instal
the u
to st
Soon
para
the fu
bitten
Gum
threw
Which
decad
ely-beg
medicin
the vital
rds-we as
The su
as camp
much sa

the venom — The specifick action of the vir-us was instantaneously perceived — The dog in a few minutes lost the use of the posterior extremities — and was unable to stand in his usual position ——

Soon as bitten — the posterior extremities became in a paralized condition — and many other indications of the full effects of the Venom — Soon as the dog was, bitten — and liberated from the Cage — I introduced a Gummelastic tube into the Stomach — of the dog — and threw down a strong decaction — of this Plant —

Which had been prepared for the purpose — soon as the decaction reached the stomach — the dog immediately began to recover — it appeared to me — soon as the medicine was taken — it speedily caused a reaction, in the vital system — and the dog in 30 minutes afterwards — was entirely cured ——

The swelling gently disappeared — All symptoms so completely dispated — in 10 or 15 minutes — so much so — the dog commenced his usual movements —

In ha
again
experi
bit the
remov
H
oratu
Senero
perfor
Philad
Venon
There
which
appear
soon
this esc
the cag
The hui

2d Experiment—

In half an hour afterwards—I put the same dog in the Cage, again with the Rattle-Snake— In making this experiment—the snake accidentally—got under the dog and bit the dog 3 successive times—before the dog could be removed—

He was bitten 3 times on the soft delicate surface of the scrotum— and almost in apposition—with the Testicles—&c— Several Graduates of this University saw the experiments performed— There were also many respectable Citizens of Philadelphia—who saw the effects produced—by the Venom of the Rattle-Snake—On the dog—

There was slight hemorrhage—from 5 or 6 distinct orifices, which were made by the teeth of the R-Snake— These appeared, to penetrate 3 or more lines in depth—

Soon as the dog received the three last bites—in attempting this experiment—he—fell apparently dead to the bottom of the cage which contained the Snake—

The hinder limbs of the dog—were instantaneously paralyzed—

He w
the B
come
the ne
of ca
Her
haurs
aniv
preva
its orig
These
matter
gelatin
This d
were p
appear
experi
ds recon
The perm

He was in a minute insensible to surrounding excitents — the Bladder was in a few minutes paralytic — and the urine, came away involuntarily — The muscles which surrounded, the neck of the Bladder had completely lost their powers of contractility —

Hence the urine was evacuated guttatim — for 6 or 8 hours — Copious discharges from the bowels — and these of an involuntary disposition — the food which the dog had previously taken was discharged — per Rectum — nearly in its original state — homogenious character &c —

These involuntary evacuations were mixed with fæcal matter — and was in 10 minutes commingled with dark gelatinous blood —

This dog vomited 4 times — his eyes in 15 minutes were perfectly glassy — and speedily assumed a milky appearance — His ears which were erect previous to the experiments now relaxed — The bladder did not afterwards recover its powers of contractility ——

The vermicular action of the stomach did not last long —

But
Shau
soon
Tube
were
3-oz
and th
doses
I can
termi
opinio
Wha
concer
a ½
Rattle
Diaphra
And to
grown
first b

But the peristaltic excitement of the intestines, continued 8 hours - without intermission — The swelling subsided, soon as a dose of this medicine was given — the Stomach Tube was used - as before — and repeated injections were thrown in — the decaction was made - by putting 3 - oz of the pulverized root - to a Quart of New Milk and this boiled - to half its Quantity — And given in 2 oz doses - frequently repeated —

I candidly believe the Narcotic - powers of this plant terminated the dogs - existance — And it was the opinion of several Graduates - of this College — Who witnessed these experiments — But not to say more, concerning these experiments, the Dog lived 13 - hours and a ½ — After being bit 4 times in succession - by the Rattle - Snake — The dog breathed entirely - from the Diaphragm, and superior ribs, intercostal muscles &c And to test the accuracy - of these experiments I put a full - grown Chicken - in the Cage - with the Snake — and at the first bite - it was killed - as dead, as if done by Electricity —

On
inha
a fo
was
In ov
large
the p
from
When
well
and
Case
wound
mad
integu
The he
made
This

One more case, I think worthy of Communicating — Capt J. An inhabitant of the County of Dinwiddie — Virginia — Had a famous running hound — which was bitten by a Dog which was said to be mad — or in other words having Canine Madness. In order to try the effects of this Plant — it was given to him, in large and repeated Doses — in to act as an Antidote — against the pernicious consequences, which were imagined to happen, from such an accident ——

When this Medicine was first administered it succeeded surprizingly well — it was continued for 3 days without intermission — And then gradually discontinued — All that I can say of this Case — the dog did not go mad — I will say a few words on the wounds which this dog received, from the One which was mad — these were superficial, and extended merely through the integuments and skin — &c —

The hemorrhge was nearly 2 drams — the parts swelled, in a moderate degree ——

Afterwards Ulcerated and Labbed ——

This wound was situated on the hind leg — 12 Months after

this b
which
The p
Medi
after
Perk
That p
mega
and r
This
B. Of op
to hap
In orde
I will
said
All
days-
died or

this bite — the same Dog was bitten — a second time — by another Dog — which was Mad —

The hemorrhage — in this case — was 2 table spoons — full — the Medicine in this case — was not — given — until the 3rd Day — after the dog had been bitten —

Perhapse the Absorbents — had take up the Virus during that period — The decoction in this Case proved — perfectly negatory — and unavailing — although given in large, and repeated doses —

This decoction was made in the following manner —

3 — Oz — of the pulverized root — put to 3 pints of New Milk — and boiled, to half — its quantity — And given in gill doses — often repeated —

In order to communicate — these experiments — more satisfactorially I will say a few words — with regard — to the two — Dogs — which — was said to be Mad —

All the Animals — in each case — which — were bitten — by these dogs — went mad — But the dog which I gave Medicine to — did not — he escaped — The second Dog Went Mad. D. C. D. —

Finis — S. G. Wynn — 1828 —